

CLAIMS

1.(Original) A method for the preparation of a dispersion of zinc sulfide particles doped with copper (ZnS:Cu), said method comprising the step of performing a precipitation by mixing together a zinc salt, a sulfide, and a citrate or EDTA complex of copper ions, dissolved in several aqueous solutions.

β 2.(Original) A method according to claim 1 wherein said precipitation is performed according to the double jet principle, whereby a first solution containing said zinc salt and said citrate or EDTA complex of copper ions, and a second solution containing said sulfide are added simultaneously to a third solution.

3.(Previously Amended) A method according to claim 1 wherein said copper ions are copper (I) ions.

4.(Currently Amended) A method according to claim 3 1 wherein said ~~copper (I) ions are incorporated as copper (I) chloride~~ citrate or EDTA complex of copper ions is prepared by combining copper (I) chloride with a citrate or an EDTA salt.

5.(Currently Amended) A method according to ~~any of~~ claim 1 further comprising the step of subjecting the mixture

formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

6.(Original) A method according to claim 5 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

β 1 7.(Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method ~~according to claim 1~~ for the preparation of a dispersion of zinc sulfide particles doped with copper (ZnS:Cu), said method comprising the step of performing a precipitation by mixing together a zinc salt, a sulfide, and a citrate or EDTA complex of copper ions, dissolved in several aqueous solutions.

8.(Previously Entered) A method according to claim 2 wherein said copper ions are copper (I) ions.

9.(Currently Amended) A method according to claim ~~8~~ 2 wherein said ~~copper (I) ions are incorporated as copper (I) chloride~~ citrate or EDTA complex of copper ions is prepared by combining copper (I) chloride with a citrate or an EDTA salt.

10. (Currently Amended) A method according to ~~any~~ of claim 2 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

11. (Previously Entered) A method according to claim 10 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

B1

12. (Previously Entered) A method according to any of claim 3 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

13. (Previously Entered) A method according to claim 12 wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

14. (Previously Entered) A method according to any of claim 4 further comprising the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

15. (Previously Entered) A method according to claim 14 wherein said diafiltration and/or ultrafiltration treatment is

performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

16. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method ~~according to claim 2~~ for the preparation of a dispersion of zinc sulfide particles doped with copper (ZnS:Cu), said method comprising the step of performing a precipitation by mixing together a zinc salt, a sulfide, and a citrate or EDTA complex of copper ions, dissolved in several aqueous solutions, wherein said precipitation is performed according to the double jet principle, whereby a first solution containing said zinc salt and said citrate or EDTA complex of copper ions, and a second solution containing said sulfide are added simultaneously to a third solution.

17. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method ~~according to claim 3~~ for the precipitation of a dispersion of zinc sulfide particles doped with copper (ZnS:Cu), said method comprising the step of performing a precipitation by mixing together a zinc salt, a sulfide, and a citrate or EDTA complex of copper

ions, dissolved in several aqueous solutions, wherein said copper ions are copper (I) ions.

18. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 4 17, wherein said citrate or EDTA complex of copper ions is prepared by combining copper (I) chloride with a citrate or an EDTA salt.

19. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method ~~according to claim 5~~ for the preparation of a dispersion of zinc sulfide particles doped with copper (ZnS:Cu), said method comprising the step of performing a precipitation by mixing together a zinc salt, a sulfide, and a citrate or EDTA complex of copper ions, dissolved in several aqueous solutions, wherein said method further comprises the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

20. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 6 19, wherein said diafiltration and/or ultrafiltration treatment

is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

21. (Canceled)

22. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 8 16, wherein said copper ions are copper (I) ions.

23. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim 9 18, wherein said precipitation is performed according to the double jet principle, whereby a first solution containing said zinc salt and said citrate or EDTA complex of copper ions, and a second solution containing said sulfide are added simultaneously to a third solution.

24. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim ~~10~~ 19, wherein said precipitation is performed according to the double jet principle, whereby a first solution containing said zinc salt and said citrate or EDTA complex of copper

ions, and a second solution containing said sulfite are added simultaneously to a third solution.

25. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim ~~11~~ 24, wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

26. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim ~~12~~ 17, wherein said method further comprises the step of subjecting the mixture formed by said precipitation step to a diafiltration and/or ultrafiltration treatment.

27. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu particles prepared by a method according to claim ~~13~~ 26, wherein said diafiltration and/or ultrafiltration treatment is performed in the presence of a compound preventing agglomeration of said ZnS:Cu particles.

28. (Currently Amended) A Thin Film Inorganic Light Emitting Diode device comprising a coated layer containing ZnS:Cu

particles prepared by a method according to claim ~~14~~ 18,
wherein said method further comprises the step of
subjecting the mixture formed by said precipitation step to
a diafiltration and/or ultrafiltration treatment.

29. (Currently Amended) A Thin Film Inorganic Light Emitting
Diode device comprising a coated layer containing ZnS:Cu
particles prepared by a method according to claim ~~15~~ 28,
wherein said diafiltration and/or ultrafiltration treatment
is performed in the presence of a compound preventing
agglomeration of said ZnS:Cu particles.
